



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/532,740	03/22/2000	Sukekazu Aratani	503.38382X00	8245

20457 7590 12/21/2001

ANTONELLI TERRY STOUT AND KRAUS  
SUITE 1800  
1300 NORTH SEVENTEENTH STREET  
ARLINGTON, VA 22209

EXAMINER

ABDULSELAM, ABBAS L

ART UNIT PAPER NUMBER

2674

DATE MAILED: 12/21/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/532,740

Applicant(s)  
Sukekazu Aratani

Examiner  
Abbas Abdulsalam

Group Art Unit  
2674



☐ Responsive to communication(s) filed on \_\_\_\_\_.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-7 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-7 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2674

### **DETAILED ACTION**

1. A certified copy of a foreign document has been received

#### **Claim Rejections 35 U.S.C. 103**

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohe et al. (USPN 5949509) in view of Johnson et al. (USPN 6252638).

Regarding claims 1, 2 and 6, Ohe teaches an active liquid crystal display device with first and second substrates (7a, 7b), and the liquid crystal layer formed in between. See column 7, lines 64-67, and column 8, lines 1-13, and Fig 2. Ohe teaches the use of LCD devices for displaying both still image and moving images and further teaches a switchable modulator that enables the device to project images that are dynamically changeable. See column 1, lines 18-20, and column 3, lines 26-30. Ohe teaches substrates in connection with electrodes constituting the display pixels; along with an application of electric field on the liquid crystal layer. See column 3, lines 13-23. Ohe also teaches a laser (30) operating as a light source as well as a top layer on the electrodes which contains the display pixels and active elements. See column 4, lines 11-13, and Fig 8. Furthermore, Ohe teaches operations in a dark state (Voff), and light state (Von) of liquid crystal display in which electric field is present. See Fig (5A-5D), and column 9, lines 18-20. Ohe

Art Unit: 2674

also teaches a control circuit (17) whose function include controlling the switching pixels to ON and OFF status. See column 8, lines 23-28. In addition, Ohe teaches the driver circuits as well as the degree of brightness on increasing or decreasing order with respect to ON and OFF status of the voltage. See column 11, lines 5-15 and See Fig 1. However, Ohe does not teach a lighting device that includes plurality of light sources. Johnson on the other hand teaches a light device which include plurality of light sources. See column 16, lines 16-31. Johnson also teaches that by varying the voltage applied to the modulator (10), the color filter can alter the amount of light. See column 8, lines 6-9, and Fig 1.

Therefore, it would have been obvious at the time the invention was made to modify Ohe's liquid crystal display to include Johnson's lighting device with plurality of light sources. One would have been motivated in view of the suggestion in Johnson a lighting device is equivalent to the desired lighting device. The use of a lighting device helps control color signals in display devices.

Regarding claim 3, Johnson teaches that the modulator passes light regardless of the voltage applied. See column 7, lines 7-10, and Fig 1.

Regarding claim 4, Johnson teaches lighting devices in connection to light emitting diodes , and a light source generating a beam of colored light. See column 31-43.

Regarding claim 5, Johnson teaches an indicator light array with output beams (C2, C3, C4). See column 12, lines 45-55, and Fig 10.

Art Unit: 2674

Regarding claim 7, Johnson teaches that multiple colored light sources are used to generate different colors of light. See column 2, lines 44-51.

### Conclusion

3. The prior art made of record and not relied upon is considered to applicant's disclosure.

The following arts are cited for further reference.

U.S. Pat No. 5,122,791 to Gibbons et al.

U.S. Pat No. 5,337,068 to Stewart et al.

U.S. Pat No. 5,412,396 to Nelson

U.S. Pat No. 6,320,568 to Zavracky

Art Unit: 2674

4. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Abbas Abdulsalam** whose telephone number is **(703) 305-8591**. The examiner can normally be reached on Monday through Friday (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe**, can be reached at **(703) 305-4709**.

**Any response to this action should be mailed to:**

Commissioner of patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314**

Hand delivered responses should be brought to crustal park II, Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology center 2600 customer Service office whose telephone number is (703) 306-0377.



**RICHARD HJERPE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**

Abbas Abdulsalam

Examiner

Art Unit 2674